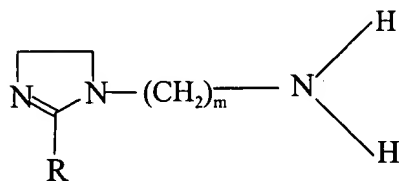
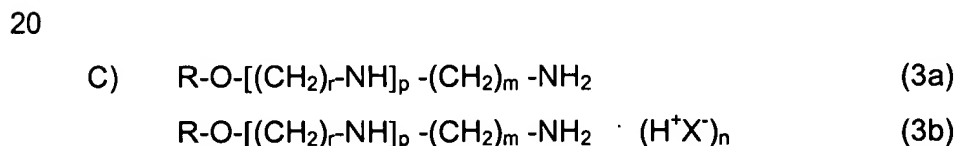
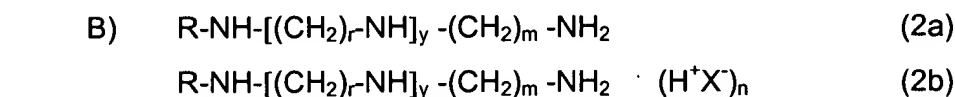
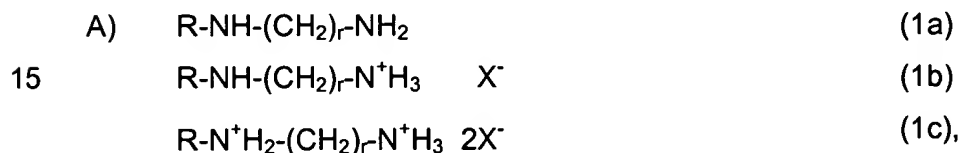


CLAIMS

1. A process for lubricating and for cleaning and/or disinfecting filling lines for containers for holding beverages or foods where the containers are transported on conveyors which - for lubrication - are contacted in operation with an aqueous solution of a conveyor lubricant, characterized in that the aqueous solution is prepared by dilution of a product concentrate with water by a first dilution factor and in that the conveyors and/or facilities connected to them are cleaned and/or disinfected after preselected time intervals without any break in the container filling and transport process by using the product concentrate to clean and/or disinfect the conveyors and/or facilities connected to them after dilution with water by a second dilution factor which is smaller than the first dilution factor.
2. A process as claimed in claim 1, characterized in that the first dilution factor is 5 to 100 times greater than the second dilution factor.
3. A process as claimed in one or both of claims 1 and 2, characterized in that, after dilution with water by a second dilution factor which is smaller than the first dilution factor, the product concentrate is used with a temperature of 5 to 80°C for cleaning and/or disinfecting the conveyors and/or facilities connected to them.
4. A process as claimed in one or more of claims 1 to 3, characterized in that the product concentrate contains 0.5 to 99.5% by weight of one or more lubricating components selected from ether amines, ether diamines, ether polyamines, mono-, di- or polyamines and imidazole derivatives each containing at least one alkyl group with 6 to 22 carbon atoms and/or salts thereof and 0.5 to 90% by weight of one or more clear solubility improvers selected from amphoteric surfactants and ether carboxylic acids, the balance to 100% by weight consisting of water and/or other active substances or auxiliaries.
5. A process as claimed in claim 4, characterized in that the product concentrate contains 1 to 40% by weight and preferably 3 to 20% by weight

of one or more lubricating components selected from ether amines, ether diamines, ether polyamines, mono-, di- or polyamines and imidazole derivatives each containing at least one alkyl group with 6 to 22 carbon atoms and/or salts thereof and 1 to 50% by weight and preferably 2 to 20%
 5 by weight of one or more clear solubility improvers selected from amphoteric surfactants and ether carboxylic acids, the balance to 100% by weight consisting of water and/or other active substances or auxiliaries.

6. A process as claimed in claim 4 or 5, characterized in that the ether amines, ether diamines, ether polyamines, mono-, di- or polyamines and
 10 imidazole derivatives each containing at least one alkyl group with 6 to 22 carbon atoms and/or salts thereof are selected from compounds belonging to the following groups:



(5)

in which the substituents R represent
a linear or branched, saturated or mono- or polyunsaturated alkyl group
containing 6 to 22 carbon atoms,

the substituents Y independently of one another represent hydrogen or a
5 methyl group,

X⁻ is an equivalent of an anion from the group consisting of amidosulfonate,
nitrate, halide, sulfate, hydrogen carbonate, carbonate, phosphate or
carboxylate,

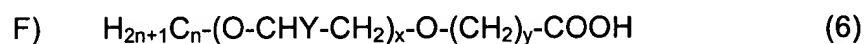
m, r and y independently of one another are integers of 1 to 6,

10 p is 0 or an integer of 1 to 6 and

n in B) is an integer of 1 to 2+y and, in C), an integer of 1 to 1+p.

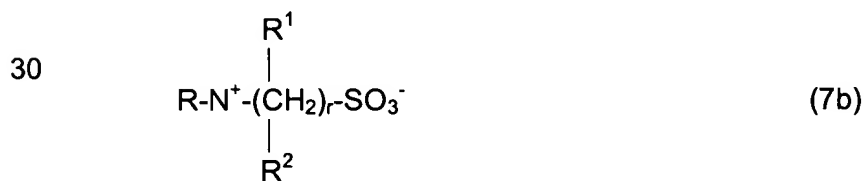
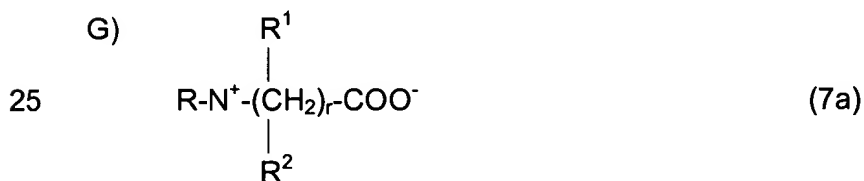
7. A process as claimed in one or more of claims 4 to 6, characterized
in that the clear solubility improvers are selected from ether carboxylic
acids corresponding to the following general formula:

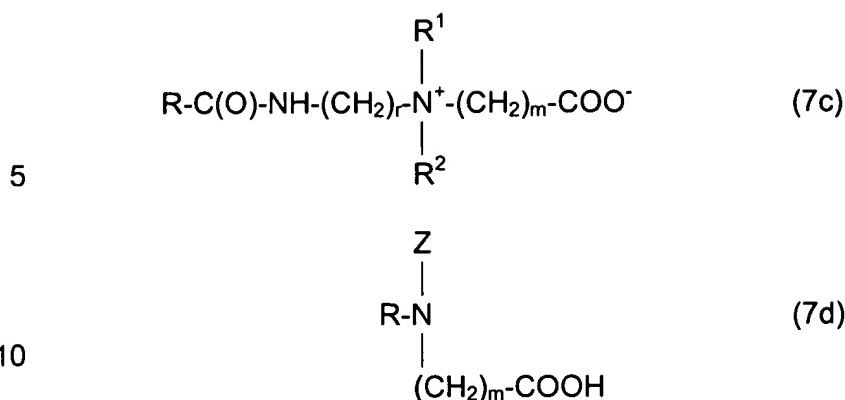
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where Y is hydrogen or a methyl group, n is a number of 10 to 20, x is a
number of 1 to 20 and y is a number of 1 to 5,

20 and from amphoteric surfactants corresponding to the following general
formulae:





where the substituents R represent

a linear or branched, saturated or mono- or polyunsaturated alkyl group containing 8 to 22 carbon atoms,

Z has the same meaning as R¹ or is a group with the formula -(CH₂)_m-COOH,

R¹ and R² independently of one another represent hydrogen, methyl, ethyl, hydroxyethyl or alkoxylate groups and

r and m independently of one another are integers of 1 to 6.

8. An installation for cleaning and/or disinfecting and lubricating filling lines for containers for holding beverages or foods where the containers are transported on conveyors, characterized in that it comprises

a) one or more nozzles for spraying the surface of the conveyor with an aqueous solution,

b) one or more dosing stations provided with i) at least a first dosing pump in at least one dosing station for diluting the aqueous solution mentioned to conveyor lubricant concentration, ii) at least a second dosing pump in at least one dosing station for diluting the aqueous solution mentioned to cleaning and/or disinfecting concentration or with at least one dosing pump of which the dosing ratio can be switched to dilute the aqueous solution mentioned to conveyor lubricant concentration and to cleaning and/or disinfecting

concentration,

- c) a pipe system for carrying the aqueous solution mentioned from the dosing stations to the nozzles.

9. An installation as claimed in claim 8, characterized in that it also
5 comprises a water throughflow meter.

10. An installation as claimed in claim 8 or 9, characterized in that it also
comprises an adjustable time switch which alternately switches the first or
the second dosing pump on and off after pre-selected time intervals or, in
the case of a dosing pump with a reversible dosing ratio, controls
10 adjustment of the conveyor lubricant concentration or the cleaning and/or
disinfecting concentration.

11. An installation as claimed in one or more of claims 8 to 10,
characterized in that it comprises other nozzles by which the underneath of
the conveyors and/or guide boxes of the conveyors can be sprayed with
15 the aqueous solution.

12. A method of operating an installation for filling containers for holding
beverages or foods where the containers are transported on conveyors
which enables the container filling and transport process to be carried out
continuously without any breaks for cleaning purposes.